

AMENDMENTS TO THE SPECIFICATION

Page 1, before line 4, please insert the following heading:

BACKGROUND OF THE INVENTION

Page 1, please delete the paragraph beginning at line 4 and substitute therefor the following new paragraph:

TECHNICAL FIELD OF THE INVENTION

The present invention relates to a vehicle for running on rail (tracked vehicle), and particularly the vehicle having the capability of providing smooth running, while moderately maintaining a grip force on the rail.

Page 1, please delete the paragraph beginning at line 8 and substitute therefor the following paragraph:

BACKGROUND DESCRIPTION OF THE RELATED ART

In a vehicle for running on a rail, there is a case that a reduction in grip force that is friction resistance between a drive wheel and the rail poses a problem for the vehicle's running. For example, slippage easily occurs on the rail in the rain. In particular, when the vehicle runs on an inclined rail in the rain, it becomes a serious problem.

Page 1, please delete the paragraph beginning at line 18 and substitute therefor the following paragraph:

In addition, to obtain a moderate grip force, it has been proposed to monitor a weight of the vehicle by a weight sensor, and control a spring constant of a spring member for pressing the wheel against the rail according to the monitored weight. However, there are problems in that the control becomes complex, and a total cost of the vehicle track system increases.

Pages 1 and 2, please delete the paragraph beginning at line 23 and substitute therefor the following paragraph:

In addition, Japanese Patent Early Publication [kokai] No. 3-70670 discloses a track device system with a running unit for running on a rail. As shown in FIG. 9, the running unit **100** used in this device has a drive wheel **110** rotatable on an upper surface of the rail **1**, and a pair of auxiliary wheels **120** rotatable on a lower surface of the rail, and has the capability of running, while holding the rail between the drive wheel and the auxiliary wheels. A curve region of the rail is designed to be different in rail width from a straight region of the rail such that an overlapping amount between the auxiliary wheel and the lower surface of the rail is not larger than a constant value. Thereby, it is possible to prevent that an excessive reaction force loads on the drive wheel **110** and the auxiliary wheels **120**, and provide smooth running on the rail **1**.

Page 4, please delete the paragraph beginning at line 19 and substitute therefor the following paragraph:

~~BEST MODE FOR CARRYING OUT THE INVENTION~~ DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

A vehicle for running on rails of the present invention is explained in detail according to preferred exemplary embodiments, referring to the attached drawings.

Page 7, please delete the paragraph beginning at line 15 and substitute therefor the following paragraph:

In the above explanation, the inclined posture of the vehicle is drawn with exaggeration to easily understand the present invention. In this embodiment, since because the rubber tires are used as the first to third wheels, the elastic deformation of these tires contributes to the inclined posture of the vehicle. When metal wheels are used in place of the rubber tires, it is preferred that the first wheels and/or the third wheels are held by the base through cushioning members such as coil springs.

Thereby, the inclined posture of the vehicle can be obtained in a similar manner to the above.

Pages 7 and 8, please delete the paragraph beginning at line 23 and substitute therefor the following paragraph:

When the vehicle **10** runs in an inclined section of the rails **1**, the first wheels **20** are the front wheels in the case of ascending the inclined section, and the second wheels **30** are the front wheels in the case of descending the inclined section, as shown in FIG. 7. In this case, ~~since~~ because the center of gravity of the vehicle is positioned at the side of the second wheels **30**, a larger weight is applied to the cushioning member, so that the vehicle can easily take the inclined posture. Therefore, increased gripping forces can be obtained between the rails **1** and the first wheels **20** of the drive wheels at the inclined section of the rails, as compared with the case that the vehicle runs in a horizontal section of the rails. From this viewpoint, it is preferred that the distance between the first wheel and the center of gravity of the vehicle in the running state is longer than the distance between the second wheel and the center of gravity, and shorter than the distance between the third wheel and the center of gravity. In brief, the center of gravity of the vehicle in the running state is preferably positioned in the vicinity of the second wheel. In addition, the deformation amounts of the cushioning members **32** increase depending on the weight of the vehicle (including loads). This means that the gripping forces of the first wheels **20** (i.e., the drive wheels) can be increased depending on the vehicle's weight. Thus, according to the present invention, it is possible to provide a moderate gripping force in response to a change of the vehicle's weight by use of the cushioning member having a desired elastic deformation capability.